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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,850	11/01/2001	William A. Bries	16-019	9029

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EXAMINER

MAYES, MELVIN C

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 05/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,850

Applicant(s)

BRIESE, WILLIAM A.

Examiner

Melvin Curtis Mayes

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 16-22, 36-45, 48, 49 and 51-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-15, 23, 25-35, 46, 47 and 50 is/are rejected.
- 7) ☒ Claim(s) 12 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1734

DETAILED ACTION

*Election/Restrictions*

(1)

Applicant's election of Claims 1-15 (Group I) and 23-35, 46, 47 and 50 (Group II) in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

*Claim Rejections - 35 USC § 112*

(2)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

(3)

Claims 4 and 27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 4 and 27 claim a sensor coupled to the drive roller that measures torque applied to the drive roller. There is no mention of such a sensor on the specification, and thus the specification does not describe such as sensor for measuring torque in such a way as to

Art Unit: 1734

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(4)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

(5)

Claims 23-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "said frame" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "said tape spool, platen and rewind spool." There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "said tape spool." There is insufficient antecedent basis for this limitation in the claim.

Claims 26 and 27 recite the limitation "said drive roller." There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites the limitation "said path of travel." There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "said pressure roller." There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 1734

Claim 34 recites the limitation "said rewind spool." There is insufficient antecedent basis for this limitation in the claim.

*Claim Rejections - 35 USC § 102*

(6)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(7)

Claims 1, 2, 6, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Rossini 5,658,420.

Rossini discloses a tape applicator comprising: a frame 12; a spool 88 (tape spool) holding tape and liner rotatably mounted on the frame, a friction brake on the spool; a drive roller 104; a peeler plate 100 to separate the liner from the tape; a take-up spool (rewind spool) driven through a drive motor and friction clutch; and application roller 182 (pressure roller) (col. 5-10).

(8)

Claims 1, 2, 5-7, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuhn et al. 2003/0056905 or Erickson 2002/0092593.

Kuhn et al. or Erickson discloses a tape applicator for applying tape to a sheet of glass comprising: a tabletop 22 for supporting a sheet of glass; a support arm 18 (gantry) for supporting and moving the tape head 100 to different locations in the x-axis direction on the tabletop; y-axis actuator 32 (dispenser actuator) for moving the tape head in the y-axis direction on the tabletop; z-axis actuator to move the tape head up and down relative to the tabletop; and rotary actuator to rotate the tape head around the z-axis of the tape head. The tape head 100 comprises a base 101 (frame); tape roll holder 102 (tape spool) for receiving a roll of tape having a liner; an unwind roller 106 (drive roller) including a motor to drive the roller to pull the tape from the roll of tape; a rotary die 122 to cut shapes in the tape; an application roller 152 (pressure roller) on an applying roller arm 151 movable by an air cylinder (pneumatic actuator) for applying the tape to the glass; a platen 154 with an edge 146 to separate the liner from the tape; a liner take-up roller 170 (rewind spool) driven by a motor; and a controller for sending signals to the actuators as to where to move the tape head relative to the tabletop. The tape roll holder and the liner take-up roller each include a friction clutch to provide tension [0039]-[0077].

*Claim Rejections - 35 USC § 103*

(9)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(10)

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kuhn et al. or Erickson, in view of Higgins 4,285,752.

Higgins teaches in automatic tape laying systems for depositing tape on a surface from a supply reel, an encoder is provided responsive to rotation of a driven roller for accurately measuring the amount of tape transported from the tape supply reel (col. 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of either Kuhn et al. or Erickson by providing the drive roller with an encoder (sensor), as taught by Higgins, to be responsive to rotation of the drive roller for accurately measuring the amount of tape transported from the tape supply reel.

(11)

Claims 8, 9, 23, 25, 28-35, 46, 47 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kuhn et al. or Erickson, in view of Dailey, Jr. 2002/0170663.

Kuhn et al. or Erickson discloses a tape applicator for applying tape to a sheet of glass comprising: a tabletop 22 for supporting a sheet of glass; a support arm 18 (gantry) for supporting and moving the tape head 100 to different locations in the x-axis direction on the

Art Unit: 1734

tabletop; y-axis actuator 32 (dispenser actuator) for moving the tape head in the y-axis direction on the tabletop; z-axis actuator to move the tape head up and down relative to the tabletop; and rotary actuator to rotate the tape head around the z-axis of the tape head. The tape head 100 comprises a base 101 (frame); tape roll holder 102 (tape spool) for receiving a roll of tape having a liner; an unwind roller 106 (drive roller) including a motor to drive the roller to pull the tape from the roll of tape; a rotary die 122 to cut shapes in the tape; an application roller 152 (pressure roller) on an applying roller arm 151 movable by an air cylinder (pneumatic actuator) for applying the tape to the glass; a platen 154 with an edge 146 to separate the liner from the tape; a liner take-up roller 170 (rewind spool) driven by a motor; and a controller for sending signals to the actuators as to where to move the tape head relative to the tabletop. The tape roll holder and the liner take-up roller each include a friction clutch to provide tension [0039]-[0077]. Kuhn et al. or Erickson disclose that to determine the initial location of the tape head on the tabletop, the actuators can include sensors to determine the location, but do not disclose an optical sensor for detecting the edge of the glass sheet.

Dailey, Jr. teaches that tape applicator for applying tape to glass panel is provided with a sensor 54 mounted to the applicator head to detect the edge of the glass panel as it is approached by the tape applicator and provide signals to the controller which controls the positioning, movement and operation of the tape applicator [0026]-[0027].

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of Kuhn et al. or Erickson by providing a sensor, as taught by Dailey, Jr., to detect the edge of the glass sheet as it is approached by the tape applicator and provide signals to the controller which controls the positioning, movement and operation of the tape applicator.



Art Unit: 1734

Providing the sensor as an optical sensor would have been obvious to one of ordinary skill in the art as a sensor which can detect the edge of a glass panel.

Further, it would have been obvious to one of ordinary skill in the art to have provided the applicator with a sensor to determine the distance between the applicator and the sheet of glass, as claimed in Claims 8, 31, 32 and 46 to determine the position the applicator in the z-axis (up and down) direction with respect to the glass for application of the tape, as Kuhn et al. or Erickson suggest including sensors to determine the location of the applicator.

(12)

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to Claim 23, further in view of Higgins 4,285,752.

Higgins teaches in automatic tape laying systems for depositing tape on a surface from a supply reel, an encoder is provided responsive to rotation of a driven roller for accurately measuring the amount of tape transported from the tape supply reel (col. 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of the references as combined by providing the drive roller with an encoder (sensor), as taught by Higgins, to be responsive to rotation of the drive roller for accurately measuring the amount of tape transported from the tape supply reel.

(13)

Claim 13 is are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kuhn et al. or Erickson, in view of Luhman 4,781,782 and Higgins.

Kuhn et al. or Erickson discloses a tape applicator for applying tape to a sheet of glass comprising: a tabletop 22 for supporting a sheet of glass; a support arm 18 (gantry) for

Art Unit: 1734

supporting and moving the tape head 100 to different locations in the x-axis direction on the tabletop; y-axis actuator 32 (dispenser actuator) for moving the tape head in the y-axis direction on the tabletop; z-axis actuator to move the tape head up and down relative to the tabletop; and rotary actuator to rotate the tape head around the z-axis of the tape head. The tape head 100 comprises a base 101 (frame); tape roll holder 102 (tape spool) for receiving a roll of tape having a liner; an unwind roller 106 (drive roller) including a motor to drive the roller to pull the tape from the roll of tape; a rotary die 122 to cut shapes in the tape; an application roller 152 (pressure roller) on an applying roller arm 151 movable by an air cylinder (pneumatic actuator) for applying the tape to the glass; a platen 154 with an edge 146 to separate the liner from the tape; a liner take-up roller 170 (rewind spool) driven by a motor; and a controller for sending signals to the actuators as to where to move the tape head relative to the tabletop. The tape roll holder and the liner take-up roller each include a friction clutch to provide tension [0039]-[0077]. Kuhn et al. or Erickson do not disclose the unwind roller (drive roller) mounted by a servo motor that includes a first sensor that measure a length of the tape.

Luhman et al. teach that a drive roller for a taping head is driven by a servo motor to drive the drive roller at varying speeds (col. 3, lines 39-41).

Higgins teaches that in automatic tape laying systems, an encoder is provided responsive to rotation of a roller for accurately measuring the amount of tape transported from the tape supply reel (col. 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of Kuhn et al. or Erickson by driving the unwind roller (drive roller) by a servo motor, as taught by Luhman et al., to drive the drive roller at varying speeds. Providing the servo motor

Art Unit: 1734

with an encoder (sensor) would have been obvious to one of ordinary skill in the art, as taught by Higgins, to accurately measure the amount of tape transported from the tape supply reel.

(14)

Claim 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to Claim 13, further in view of Dailey, Jr.

Dailey, Jr. teaches that tape applicator for applying tape to glass panel is provided with a sensor 54 mounted to the applicator head to detect the edge of the glass panel as it is approached by the tape applicator and provide signals to the controller which controls the positioning, movement and operation of the tape applicator [0026]-[0027].

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of the references as combined by providing a sensor, as taught by Dailey, Jr., to detect the edge of the glass sheet as it is approached by the tape applicator and provide signals to the controller which controls the positioning, movement and operation of the tape applicator. Providing the sensor as an optical sensor would have been obvious to one of ordinary skill in the art as a sensor which can detect the edge of a glass panel.

Further, it would have been obvious to one of ordinary skill in the art to have provided the applicator with a sensor to determine the distance between the applicator and the sheet of glass, as claimed in Claim 14 to position the applicator in the z-axis (up and down) direction with respect to the glass for application of the tape, as Kuhn et al. or Erickson suggest including sensors to determine the location of the applicator.

Art Unit: 1734

*Allowable Subject Matter*

(15)

Claims 12 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

(16)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(17)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 703-308-1977. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Application/Control Number: 10/032,850

Page 12

Art Unit: 1734

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
Melvin Curtis Mayes  
Primary Examiner  
Art Unit 1734

MCM  
May 2, 2003